

ABSTRACT OF THE DISCLOSURE

This invention provides novel methods and compositions for modulating and stimulating the immune system of animals to withstand microbial infections and the lethality of endotoxic shock by feeding or injecting bacteria-free oligoribonucleotides (ORNs) released by either harmless or pathogenic bacteria. The invention also describes the molecular mode of action of the health benefits derived from consuming fermented dairy products and probiotic bacteria.